REMARKS

A. Request for Reconsideration

Applicants have carefully considered the matters raised by the Examiner in the outstanding Office Action but remain of the position that patentable subject matter is present. Applicants respectfully request reconsideration of the Examiner's position based on the amendments to the specification, the amendments to the claims and the following remarks.

B. The Invention

The present invention is directed to a circuit board and method of manufacturing the circuit board.

In one of the novel aspects of the invention, the circuit board contains a resin layer formed on a conductive pattern by curing a photocurable resin. The resin layer of the invention prevents the conductive pattern from oxidizing.

In another novel aspect of the invention, the conductive pattern has a line width of 20 μm or less. A fine conductive pattern is thereby obtained.

C. Affirmation of Election

Applicants confirm the election of Group I, claims 1-4.

D. Claim Status and Amendments

Claims 1, 2, 4 and 12-14 are currently under prosecution. Claims 5-11 have been withdrawn from consideration. Claim 3 has been cancelled and claims 12-14 have been added by this amendment.

Claim 1 has been amended to include the limitations of claim 3. Claim 1 now recites the line width of the conductive pattern. Claim 3 has been cancelled.

Claim 1 has also been amended to clarify that the resin layer is composed of a photocurable resin and that the resin layer is formed on the conductive pattern by curing the photocurable resin. Support for this amendment can be found on page 8, lines 5-6.

Claim 12 has been added to recite the composition of the conductive pattern. Support for this claim can be found on page 10, lines 2-5 and page 11, lines 1-3.

Claim 13 has been added to recite the weight average molecular weight of the dispersant. Support can be found on page 10, lines 19-20.

Claim 14 has been added to recite the structure of the main chain of the dispersant. Support can be found on page 11, lines 9-11.

E. Rejections under 35 USC § 112

Claim 1 had been rejected under section 112 as being indefinite. The Examiner had stated that it is unclear how the resin layer is formed by the photocurable resin.

Applicants have amended claim 1 to clarify that the resin layer is composed of a photocurable resin, and the resin layer is formed on the conductive pattern by curing the photocurable resin. It is believed that amended claim 1 complies with section 112.

F. Rejections under 35 USC 102(b)

Claims 1 and 2 had been rejected as being anticipated by Takiguchi (US 6,228,465). Claims 1-4 had been rejected as being anticipated by Yoshida (US 6,621,003).

1. Takiguchi does not teach or suggest the line width of 20 μm or less

Takiguchi had not been cited against claim 3 which recited that the line width of the conductive pattern is 20 μm or less.

Applicants have amended claim 1 to include the limitations of claim 3. It is therefore believed that the rejection based on Takiguchi is overcome.

2. Yoshida does not teach or suggest a resin layer formed by curing a photocurable resin

The resin layer of the present invention is formed by curing a photocurable resin (page 25, lines 1-2). The cured resin layer protects the conductive pattern from oxidation (page 18, lines 8-25).

Yoshida teaches a radiation shielding material composed of base material 1, conductive pattern 3' and hot melt adhesive resin layer 2 (see Figure 2 and col. 4, lines 12-17 of Yoshida). The Examiner had taken the position that hot melt adhesive resin layer 2 of Yoshida is the claimed resin layer formed by curing a photocurable resin, since Yoshida teaches that hot melt adhesive resin layer 2 is an acrylic layer (col. 4, lines 45-46).

The hot melt adhesive layer of Yoshida is not a photocurable resin layer that protects the conductive pattern from oxidation. Instead, the layer of Yoshida is merely an adhesive that bonds various layers (col. 4, lines 28-33). Adhesion is accomplished by melting the hot melt adhesive layer during thermal pressing (col. 8, lines 42-48).

The hot melt adhesive layer of Yoshida is therefore not a "photocurable" resin layer which cures by irradiation with light to prevent the conductive pattern from oxidizing. Applicants therefore respectfully submit that Yoshida does not teach or suggest the resin layer of the present invention.

G. Conclusion

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance and such action is respectfully requested. Should any extensions of time or fees be necessary in order to maintain this Application in pending condition, appropriate requests are hereby made and authorization is given to debit Account # 02-2275.

Respectfully submitted,

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